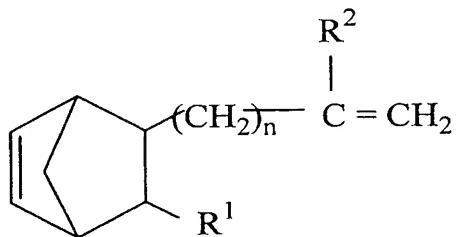


CLAIMS

1. A curable composition characterized in that it contains
 a silyl-containing ethylene/ α -olefin/non-conjugated
 5 polyene random copolymer rubber (A1) which has a structural unit
 derived from a norbornene compound, represented by the following
 general formula [I] or [II], as the non-conjugated polyene with
 at least one specific vinyl group at the terminal, and containing
 a hydrolyzable silyl group, represented by the following general
 10 formula [III], and

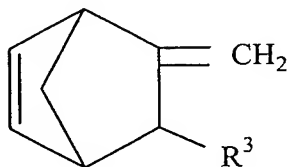


[I]

wherein, "n" is an integer of 0 to 10;

20 R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
 and

R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

10 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

15 a compound (B), other than the rubber (A1), having a hydroxyl group and/or a hydrolyzable group.

2. The curable composition according to Claim 1, wherein said compound (B) having a hydroxyl group and/or a hydrolyzable group contains silicon.

20

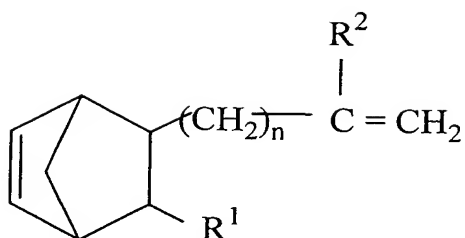
3/ A curable, elastic composition characterized in that it contains

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general

25

30 formula [III], and

5



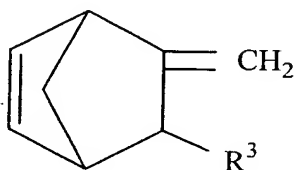
[I]

wherein, "n" is an integer of 0 to 10;

10 R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
and

R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,

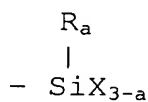
15



[II]

20 wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon
atoms,

25



[III]

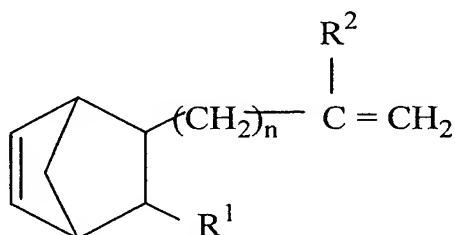
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon
atoms; X is a hydrolyzable group selected from the group
30 consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate,

amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

a compound (B1) having a silanol group and/or a compound which can react with moisture to form a compound having a silanol group in the molecule.

4. A curable rubber composition characterized in that it contains

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],

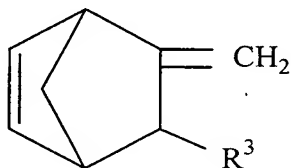


[I]

wherein, "n" is an integer of 0 to 10;

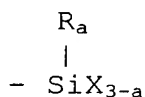
R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

a tetravalent tin compound (C), and

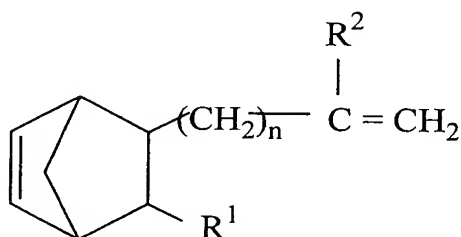
a silicon compound (B2) represented by the following general formula [V]:



wherein, R^4 and R^5 are each a substituted or unsubstituted hydrocarbon group of 1 to 20 carbon atoms, and "a" is 0, 1, 2, or 3.

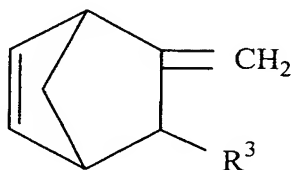
5. A curable composition characterized in that it contains
 (a) a silyl-containing ethylene/ α -olefin/non-conjugated
 polyene random copolymer rubber (A1) which has a structural unit

derived from a norbornene compound, represented by the following
 general formula [I] or [II], as the non-conjugated polyene with
 at least one specific vinyl group at the terminal, and containing
 a hydrolyzable silyl group, represented by the following general
 5 formula [III],



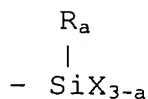
[I]

10
 15 wherein, "n" is an integer of 0 to 10;
 R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
 and
 R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

20
 25 wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon
 atoms,

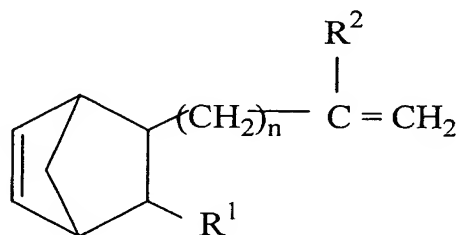


[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

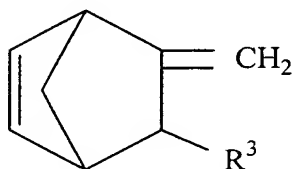
(b) a silicon compound (B3) having at least one amino group and at least one trialkylsiloxy group in the molecule.

6/ A curable composition characterized in that it contains (a) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],



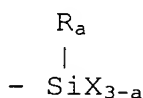
[I]

wherein, "n" is an integer of 0 to 10;
 R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
 and
 R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2; and (b) an organosilicon compound (B4) represented by the following general formula [VI]:

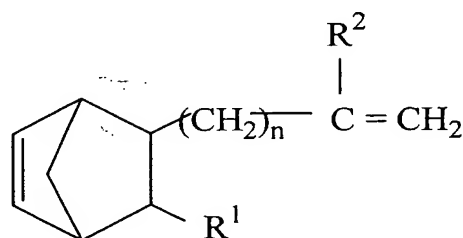


wherein, R^1 is an alcohol residue or a weak acid residue, R^2 is a methyl or vinyl group, and "n" is a positive integer.

7/ A rubber composition curable at an ordinary temperature and characterized in that it contains

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit

derived from a norbornene compound, represented by the following
 general formula [I] or [II], as the non-conjugated polyene with
 at least one specific vinyl group at the terminal, and containing
 a hydrolyzable silyl group, represented by the following general
 5 formula [III],



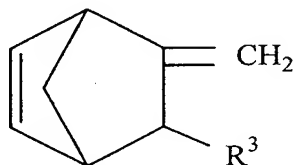
[I]

wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

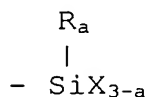
and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon
 25 atoms,

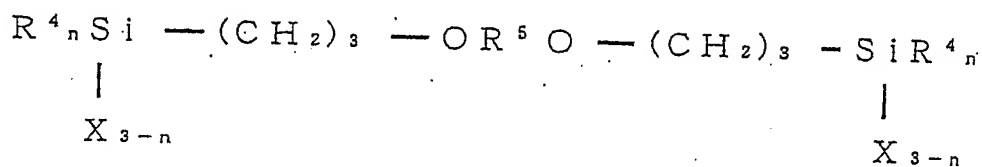
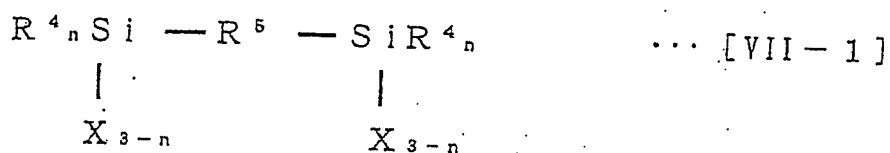


[III]

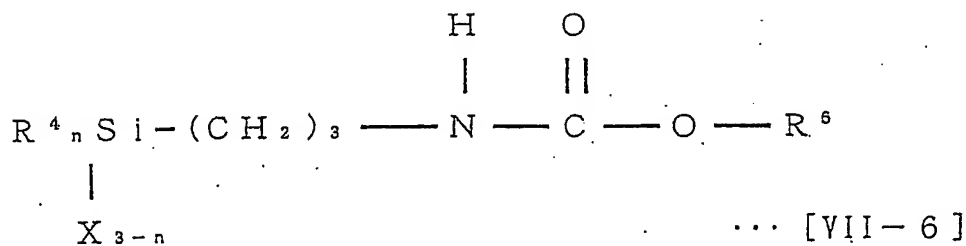
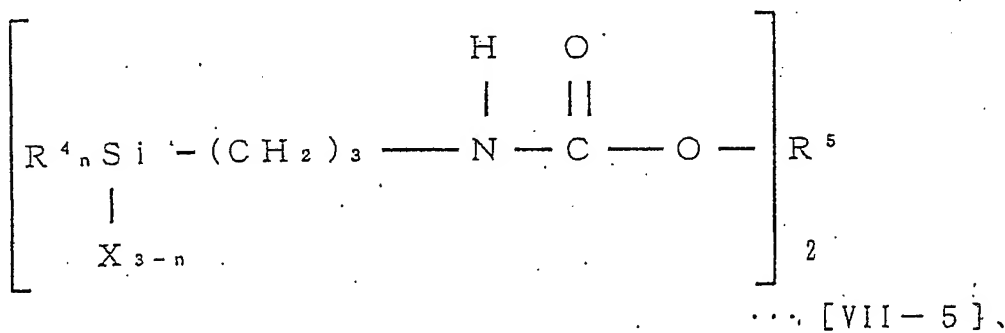
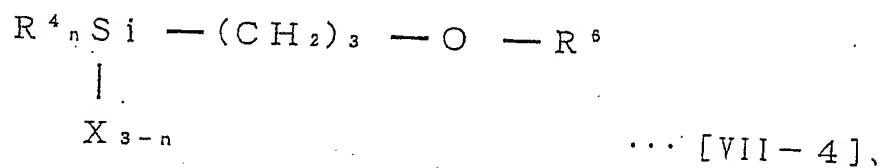
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy
5 and amino group; and "a" is an integer of 0 to 2, and

a silane compound (B5) represented by one of the following general formulae [VII-1] to [VII-6]:

10070507.030702
2070507.030702



$\dots [\text{VII}-3],$



10070507-030702

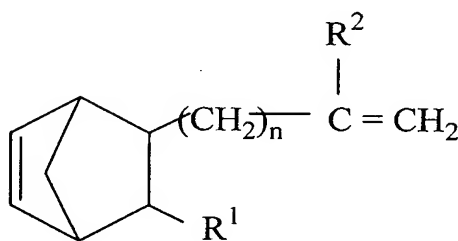
wherein, R^4 is a monovalent hydrocarbon group of 1 to 10 carbon atoms, selected from the group consisting of alkyl, aralkyl and aryl;

X is a group selected from the group consisting of halogen, hydroxy, alkoxyl, acyloxy, aminoxy, phenoxy, thioalkoxy, amino, ketoximate, mercapto and alkenyloxy;

R^5 is an alkylene or arylene group of 8 to 200 carbon atoms; R^6 is a monovalent alkyl group of 8 to 200 carbon atoms; and "n" is an integer of 0 to 2.

8. A curable rubber composition characterized in that it contains, as the active components,

(A1) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],



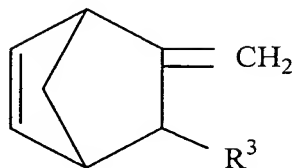
[I]

wherein, "n" is an integer of 0 to 10;

R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

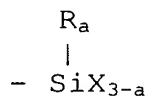
and

R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

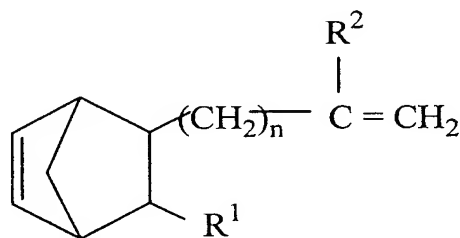
(D) amines selected from the group consisting of aliphatic amines, alicyclic amines, modified cycloaliphatic polyamines and ethanolamines,

(B6) a silane coupling agent represented by the general formula $Y_3(Si)Z$, wherein Y is an alkoxyl group; and Z is an alkyl group containing a functional group selected from the group consisting of amino group, which may be substituted with an aminoalkyl group or not, and mercapto group, and

(E) a resin composed of a lacquer-based paint, an acrylic

lacquer-based paint, an acrylic resin-based paint, a thermosetting acrylic paint, an alkyd paint, a melamine paint, an epoxy paint or organopolysiloxane.

- 5 9. A curable composition characterized in that it contains,
 (a) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with
 10 at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],



[I]

15

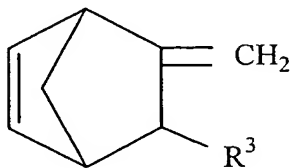
wherein, "n" is an integer of 0 to 10;

R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

and

R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,

20



[II]

- 25 wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon

atoms,



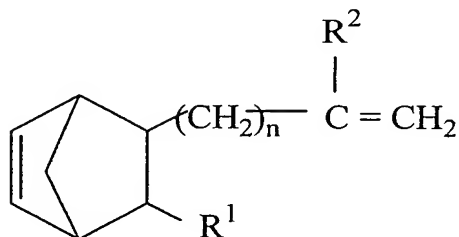
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(b) a silane-based compound (B7) substituted with an amino group.

10. A curable composition characterized in that it contains,

(A1) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],



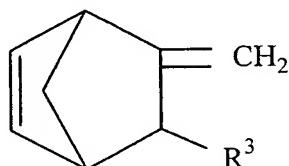
[I]

wherein, "n" is an integer of 0 to 10;

R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
and

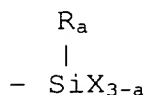
R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,

5



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acidamide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(F) a filler, (G) a plasticizer, (H) a curing catalyst and (B8) an organocarboxylate compound.

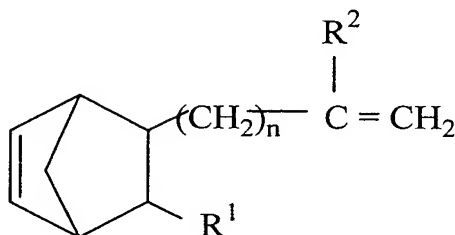
25

11. A curable rubber composition characterized in that it contains,

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following

30

general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],



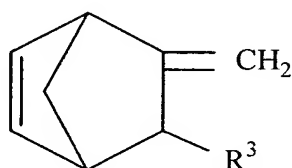
[I]

wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

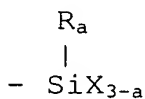
and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

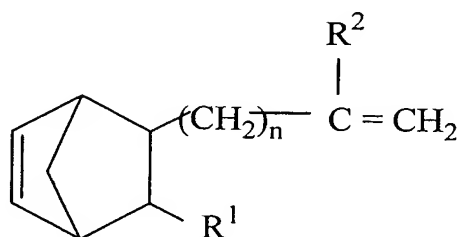
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

alcohols (B9) and/or a hydrolyzable ester (I) (except the hydrolyzable organosilicon compound (B10), and

a hydrolyzable organosilicon compound (B10).

12. A two- or more multi-liquid type curable rubber composition composed of at least two liquids, characterized in that it contains

a major ingredient (I) containing a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],



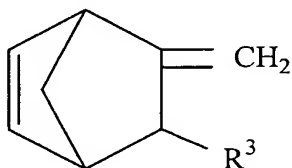
[I]

wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

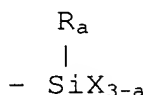
and

R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



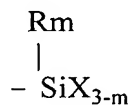
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

a curing agent (II) containing a silanol condensing catalyst (J) and water or a hydrate of a metallic salt (B11).

13. A curable rubber composition comprising

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A2) containing a hydrolyzable silyl group, represented by the following general formula (1):

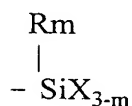


(1)

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, and a high-molecular compound (K) other than the rubber (A2) and/or an inorganic filler (L).

14. A rubber composition comprising

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A2) containing a hydrolyzable silyl group, represented by the following general formula (1):



(1)

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, and (K1) an organosilicon polymer.

15. A rubber composition comprising

(A2) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber containing a hydrolyzable silyl

group, represented by the following general formula (1):



5

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(K2) organic rubber, and

(M) a crosslinking agent for the organic rubber (K2).

10
10070507.030702
5

16. A rubber composition comprising

(A2) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber containing a hydrolyzable silyl group, represented by the following general formula (1):

20



25

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(K3) an epoxy resin,

- (N) a silane coupling agent,
 (O) a silanol condensing catalyst, and
 (P) a curing agent for the epoxy resin.

5 17. A rubber composition comprising

(A2) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber containing a hydrolyzable silyl group, represented by the following general formula (1):



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(K3) an epoxy resin,

(Q) a silicon compound containing a functional group reactive with an epoxy group and a hydrolyzable silyl group in the molecule, and

(R) a silicon compound containing at least two hydroxyl groups bonded to the silicon atom in the molecule.

25 18. A rubber composition comprising

(A2) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber containing a hydrolyzable silyl group, represented by the following general formula (1):

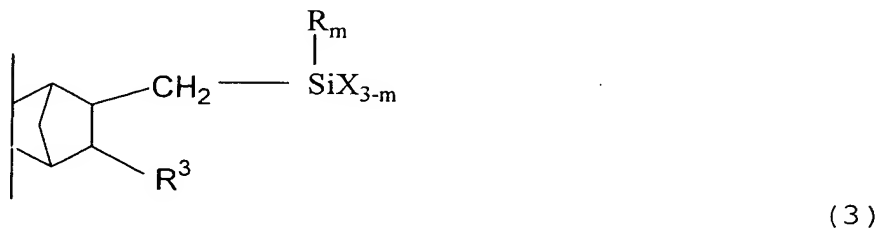
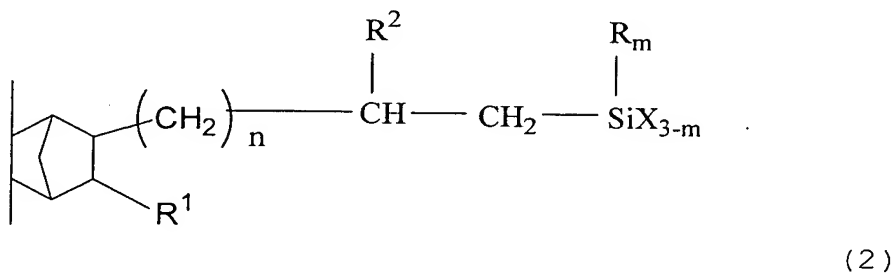


5 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

10 (L1) calcium carbonate, and

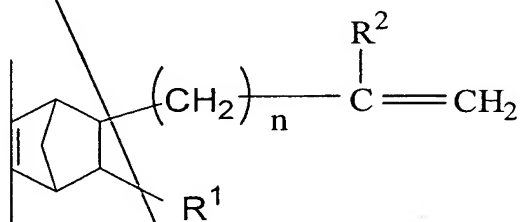
(L2) talc.

19. The rubber composition according to any one of Claims 14 to 18, wherein said silyl-containing
 15 ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A2) has at least one type of silyl group containing units represented by the following general formula (2) or (3):

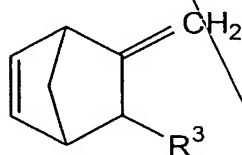


wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms; R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2 and "n" is an integer of 0 to 10.

20. The rubber composition according to any one of Claims 14 to 19, wherein said silyl-containing ethylene/α-olefin/non-conjugated polyene random copolymer rubber (A2) is produced by reacting a silyl-containing ethylene/α-olefin/non-conjugated polyene random copolymer rubber having a norbornene compound as the non-conjugated polyene with at least one terminal vinyl group represented by the following general formula (4) and/or (5):



(4)



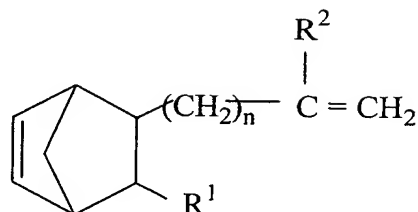
(5)

wherein, R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms; R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; and "n" is an integer of 0 to 10, with a silicon compound represented by the following general formula (6):



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxy, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, to add the SiH group of the silicon compound to the double bond of the copolymer rubber.

21. A curable composition characterized in that it contains (a) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III], and



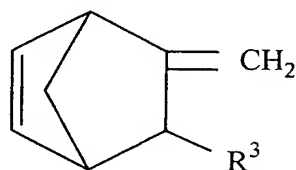
5

[I]

wherein, "n" is an integer of 0 to 10;

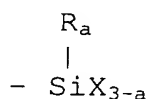
R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



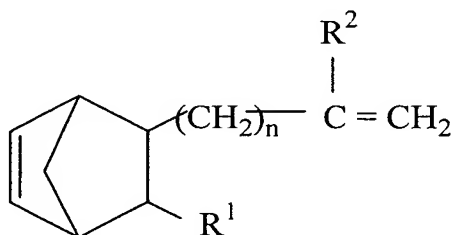
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

- (b) a nickel-containing light stabilizer (S) and
 (c) a silane coupling agent (T).

22. A curable rubber composition characterized in that it
 5 contains

a silyl-containing ethylene/ α -olefin/non-conjugated
 polyene random copolymer rubber (A1) which has a structural unit
 derived from a norbornene compound, represented by the following
 general formula [I] or [II], as the non-conjugated polyene with
 at least one specific vinyl group at the terminal, and containing
 a hydrolyzable silyl group, represented by the following general
 formula [III], and

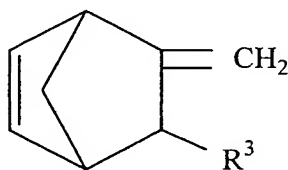


[I]

wherein, "n" is an integer of 0 to 10;

R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
 and

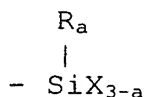
R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,

5



[III]

10

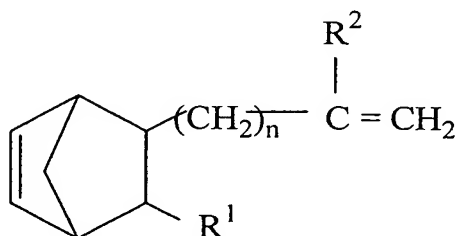
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and
a sulfur-based aging inhibitor (U).

5

23. A curable composition characterized in that it contains
(A1) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III], and

20

25



30

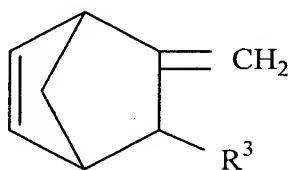
[I]

wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

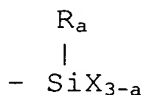
and

5 R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



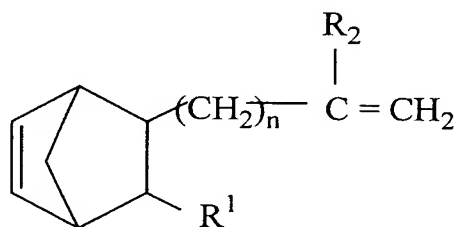
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(V) a compound having, in the molecule, an unsaturated group capable of triggering polymerization by reacting with oxygen in air and/or a photopolymerizable material.

24. An adhesive composition characterized in that it contains

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with
 5 at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III], and



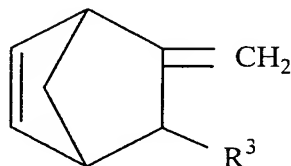
[I]

wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

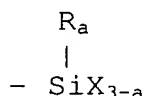
and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



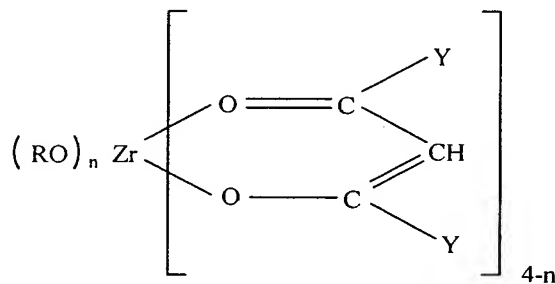
[III]

5

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

a tackiness imparting resin (W), and

a curing catalyst (H) composed of an organozirconium compound (H1) represented by the following general formula [VIII] or an organoaluminum compound (H2) represented by the following general formula [IX]:



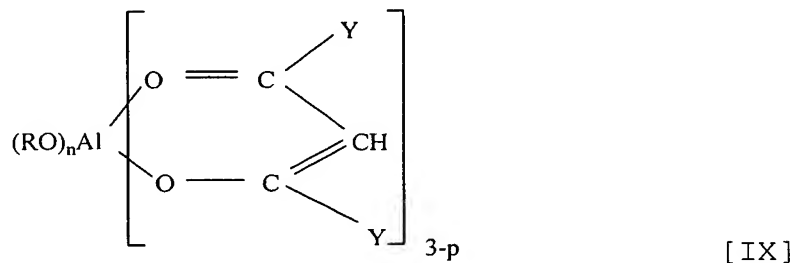
[VIII]

25 wherein, "n" is an integer of 0 to 4,

R is a monovalent hydrocarbon group of 1 to 20 carbon atoms, and

Y is a group selected from the group consisting of hydrocarbon of 1 to 8 carbon atoms, halogenated hydrocarbon, cyanoalkyl, alkoxyl, halogenated alkoxyl, cyanoalkoxy and amino group, which

may be the same or different, and



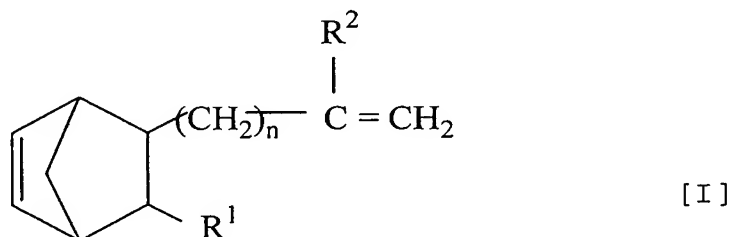
wherein, "p" is an integer of 0 to 3,

R is a monovalent hydrocarbon group of 1 to 20 carbon atoms,
and

Y is a group selected from the group consisting of hydrocarbon
of 1 to 8 carbon atoms, halogenated hydrocarbon, cyanoalkyl,
alkoxyl, halogenated alkoxyl, cyanoalkoxy and amino group, which
may be the same or different.

25. A rubber composition of improved pot life, characterized
in that it contains

a silyl-containing ethylene/ α -olefin/non-conjugated
polyene random copolymer rubber (A1) which has a structural unit
derived from a norbornene compound, represented by the following
general formula [I] or [II], as the non-conjugated polyene with
at least one specific vinyl group at the terminal, and containing
a hydrolyzable silyl group, represented by the following general
formula [III], and

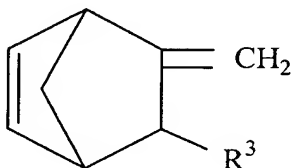


wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

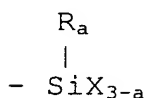
and

5 R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,

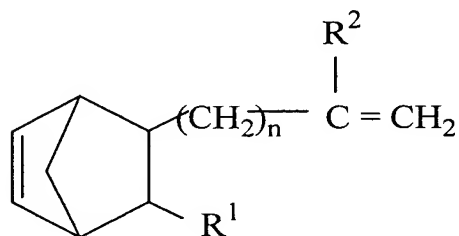


[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy, and amino group; and "a" is an integer of 0 to 2,

a curing catalyst (H) composed of a mercaptide type organotin compound (H3) having the Sn-S bond, a sulfide type organotin compound (H4) having the Sn=S bond, organocarboxylic acid (H5), organocarboxylic anhydride (H6), or a mixture of one of the above compounds and a carboxylic type organotin compound (H7).

26. A curable composition characterized in that it contains
 (A1) a silyl-containing ethylene/ α -olefin/non-conjugated
 polyene random copolymer rubber which has a structural unit
 5 derived from a norbornene compound, represented by the following
 general formula [I] or [II], as the non-conjugated polyene with
 at least one specific vinyl group at the terminal, and containing
 a hydrolyzable silyl group, represented by the following general
 formula [III], and

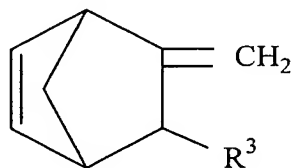


wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

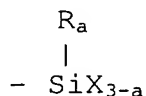
20 and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon

atoms,



[III]

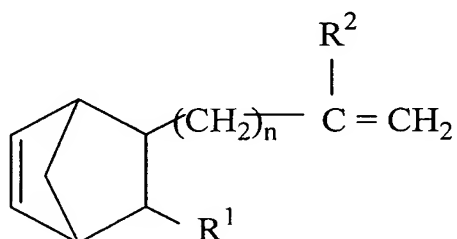
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(H8) a compound as a curing catalyst (H), represented by the general formula $Q_2Sn(OZ)_2$ or $[Q_2Sn(OZ)]_2O$,

wherein, Q is a monovalent hydrocarbon group of 1 to 20 carbon atoms; and Z is a monovalent hydrocarbon group of 1 to 20 carbon atoms or an organic group having a functional group capable of forming therein a coordination bond with Sn.

27. A curable rubber composition characterized in that it contains

a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III], and



5

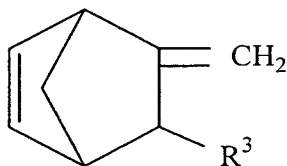
[I]

wherein, "n" is an integer of 0 to 10;

R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;

and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,

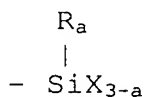


15

[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,

20



[III]

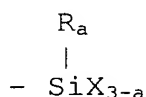
25

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

30

titanates (Y).

28. A crosslinkable rubber composition comprising
 an organic polymer (Z) containing a hydrolyzable silyl group
 5 represented by the following general formula [III] and
 essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon
 atoms; X is a hydrolyzable group selected from the group
 15 consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate,
 amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy
 and amino group; and "a" is an integer of 0 to 2, and

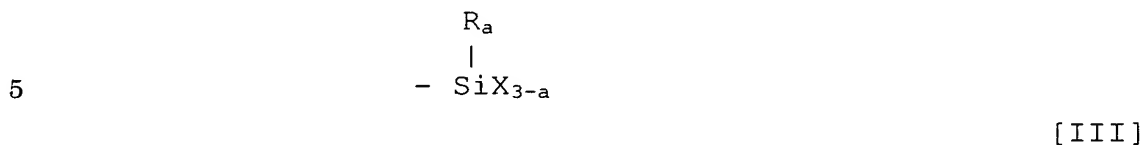
a compound (B) containing hydroxyl and/or hydrolyzable
 groups;

- 20 wherein said curable elastic composition is used for
 electric/electronic device members, transportation machines,
 and civil engineering/construction, medical and leisure areas.

29. The curable composition according to Claim 28, wherein said
 25 compound (B) containing hydroxyl and/or hydrolyzable groups
 contains silicon.

30. A crosslinkable rubber composition comprising
 an organic polymer (Z) containing a hydrolyzable silyl group
 30 represented by the following general formula [III] and

essentially no unsaturated double bond in the main chain:

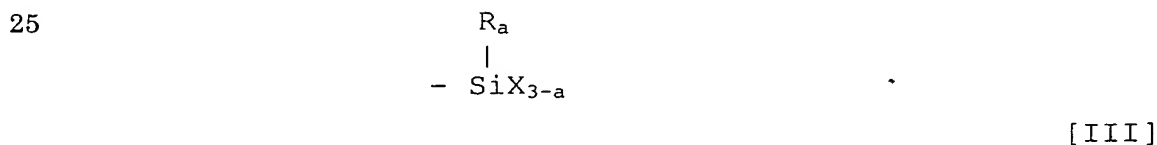


wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

a compound having a silanol group and/or a compound which can react with moisture to form a compound having a silanol group in the molecule (B1), and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

31. A crosslinkable rubber composition comprising an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group

consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2., and

a tetravalent tin compound (C) and

- 5 a silicon compound (B2) represented by the following general formula [V]:

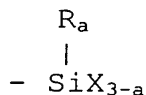


10 wherein, R^4 and R^5 are each a substituted or unsubstituted hydrocarbon group of 1 to 20 carbon atoms, and "a" is 0, 1, 2, or 3, and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

32. A curable composition comprising

(a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and

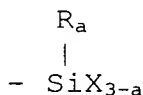
amino group; and "a" is an integer of 0 to 2, and

(b) a silicon compound (B3) having at least one amino group and at least one trialkylsiloxo group; and

used for electric/electronic device members,
5 transportation machines, and civil engineering/construction, medical and leisure areas.

33. A curable composition comprising

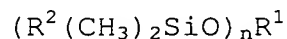
(a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2., and

(b) an organosilicon compound (B4) represented by the following general formula [VI]:



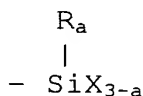
[VI]

wherein, R¹ is an alcohol residue or a weak acid residue, R² is a methyl or vinyl group, and "n" is a positive integer; and
30 used for electric/electronic device members, transportation

machines, and civil engineering/construction, medical and leisure areas.

34. A crosslinkable rubber composition comprising

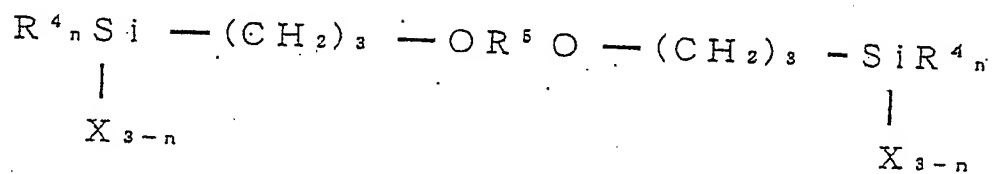
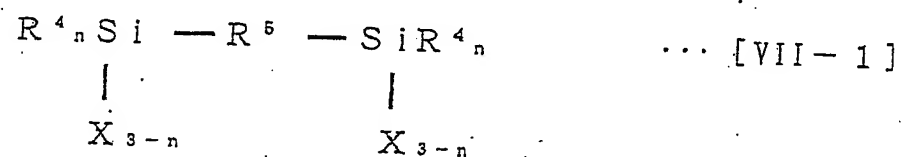
5 an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



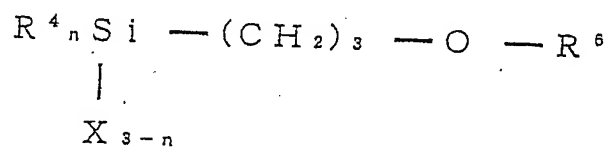
[III]

10 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

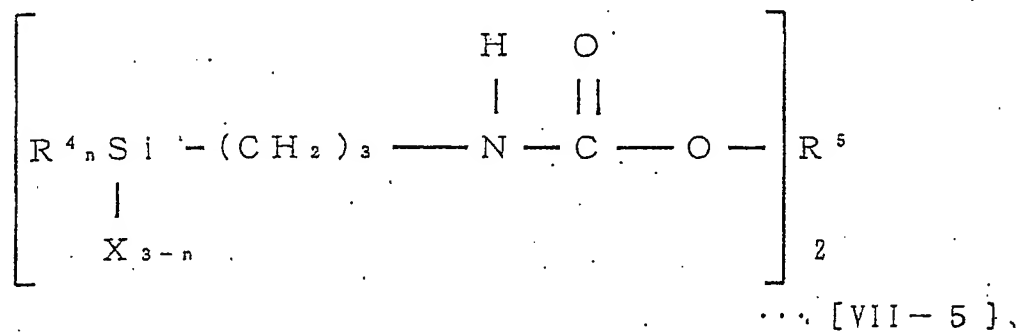
15 a silane compound (B5) represented by one of the following
20 general formulae [VII-1] to [VII-6]:



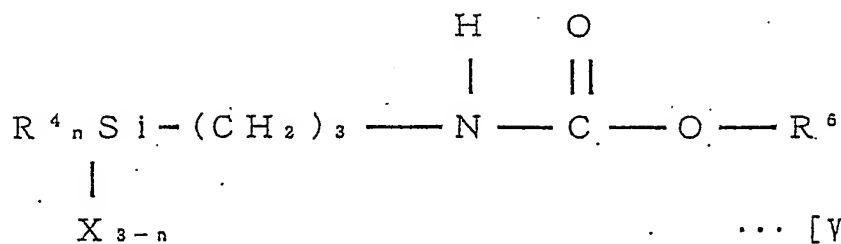
... [VII-3]



... [VII-4],



... [VII-5],



... [VII-6]

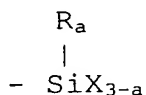
wherein, R⁴ is a hydrocarbon group of 1 to 10 carbon atoms, selected from the group consisting of alkyl, aralkyl and aryl; X is a group selected from the group consisting of halogen, hydroxy, alkoxyl, acyloxy, aminoxy, phenoxy, thioalkoxy, amino,

5 ketoximate, mercapto and alkenyloxy; R⁵ is an alkylene or arylene group of 8 to 200 carbon atoms; R⁶ is a monovalent alkyl group of 8 to 200 carbon atoms; and "n" is an integer of 0 to 2;

curable at an ordinary temperature and used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

35. A crosslinkable rubber composition comprising, as the active components,

(Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

(D) amines selected from the group consisting of aliphatic amines, alicyclic amines, modified cycloaliphatic polyamines

and ethanolamines,

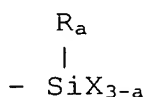
(B6) a silane coupling agent represented by the general formula $Y_3(Si)Z$, wherein Y is an alkoxyl group; and Z is an alkyl group containing a functional group selected from the group consisting of amino group, which may be substituted with an aminoalkyl group or not, and mercapto group, and

(E) a resin composed of a lacquer-based paint, an acrylic lacquer-based paint, an acrylic resin-based paint, a thermosetting acrylic paint, an alkyd paint, a melamine paint, an epoxy paint or organopolysiloxane; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

36. A curable composition comprising

(a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(b) a silane-based compound substituted with amino group

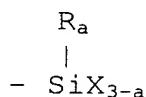
(B7); and

used for electric/electronic device members, transportation machines; and civil engineering/construction, medical and leisure areas.

5

37. A curable composition comprising

(Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



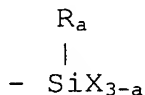
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and (F) a filler, (G) a plasticizer, (H) a curing catalyst and (E8) an organocarboxylate compound; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

38. A crosslinkable rubber composition comprising

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



5

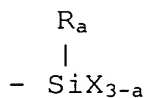
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2.,

alcohols (B9) and/or a hydrolyzable ester compound (I) (except the hydrolyzable organosilicon compound (B10), and a hydrolyzable organosilicon compound (B10); and used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

39. A two- or more multi-liquid type crosslikable rubber composition comprising at least two liquids, characterized in that it contains

a major ingredient (I) containing an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



30

[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

a curing agent (II) containing a silanol condensing catalyst (J) and water or a hydrate of a metallic salt (B11); and used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

40. A crosslinkable rubber composition comprising an organic polymer (Z1) containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, and

a high-molecular compound (K) other than the organic polymer (Z1) and/or an inorganic filler (L); and

used for electric/electronic members, transportation machines, and civil engineering/construction, medical and leisure areas.

41. A crosslinkable rubber composition comprising

(Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, and

(K1) an organosilicon polymer; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

42. A crosslinkable rubber composition comprising

(Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,

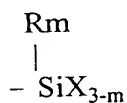


wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon

atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

- 5 (M) a crosslinking agent for the organic rubber (K2), and used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

10 43. A crosslinkable rubber composition comprising (Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



(1)

15 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

- 20 (K3) an epoxy resin,
25 (N) a silane coupling agent,
(O) a silanol condensing catalyst, and
(P) a curing agent for the epoxy resin; and used for electric/electronic device members, transportation machines, and civil engineering/construction,

medical and leisure areas.

44. A crosslinkable rubber composition comprising

(Z1) an organic polymer containing a hydrolyzable silyl
 5 group represented by the following general formula (1) and
 essentially no unsaturated double bond in the main chain,



10 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon
 atoms; X is a hydrolyzable group selected from the group
 consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate,
 15 amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and
 alkenyloxy group; and "m" is an integer of 0 to 2,

(K3) an epoxy resin,

(Q) a silicon compound containing a functional group
 reactive with an epoxy group and a hydrolyzable silyl group in
 20 the molecule and

(R) a silicon compound containing at least two hydroxyl
 groups bonded to the silicon atom in the molecule; and

used for electric/electronic device members,
 transportation machines, and civil engineering/construction,
 25 medical and leisure areas.

45. A crosslinkable rubber composition comprising

(Z1) an organic polymer containing a hydrolyzable silyl
 group represented by the following general formula (1) and

essentially no unsaturated double bond in the main chain,



5

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(L1) calcium carbonate and

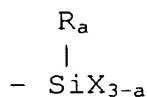
(L2) talc; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

46. A curable composition characterized in that it contains

(a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III]

and essentially no unsaturated double bond in the main chain,



[III]

25

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and

amino group; and "a" is an integer of 0 to 2,

(b) a nickel-containing light stabilizer (S) and

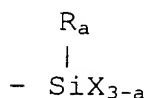
(c) a silane coupling agent (T); and

used for electric/electronic device members,

5 transportation machines, and civil engineering/construction,
medical and leisure areas.

47. A crosslinkable rubber composition characterized in that
it contains

10 an organic polymer (Z) containing a hydrolyzable silyl group
represented by the following general formula [III] and
essentially no unsaturated double bond in the main chain:



[III]

15 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon
atoms; X is a hydrolyzable group selected from the group
consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate,
amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy
and amino group; and "a" is an integer of 0 to 2, and

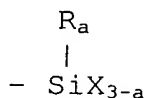
a sulfur-based aging inhibitor (U); and

20 used for electric/electronic device members,
transportation machines, and civil engineering/construction,
medical and leisure areas.

48. A curable composition characterized in that it contains

30 (Z) an organic polymer containing a hydrolyzable silyl group

represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

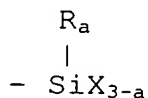
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(V) a compound having, in the molecule, an unsaturated group capable of triggering polymerization by reacting with oxygen in air and/or a photopolymerizable material; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

49. An adhesive composition characterized in that the crosslinkable rubber composition contains

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:

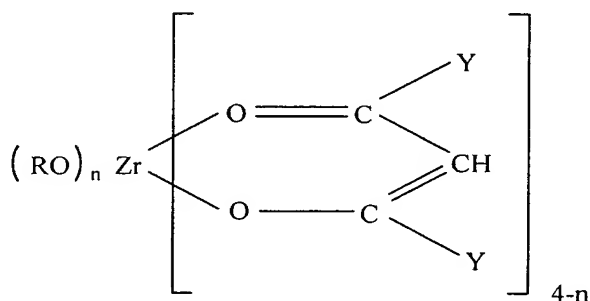


[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy
 5 and amino group; and "a" is an integer of 0 to 2,

a tackiness imparting resin (W), and

a curing catalyst (H) composed of an organozirconium compound (H1) represented by the following general formula [VIII] or an organoaluminum compound (H2) represented by the following
 10 general formul [IX]:

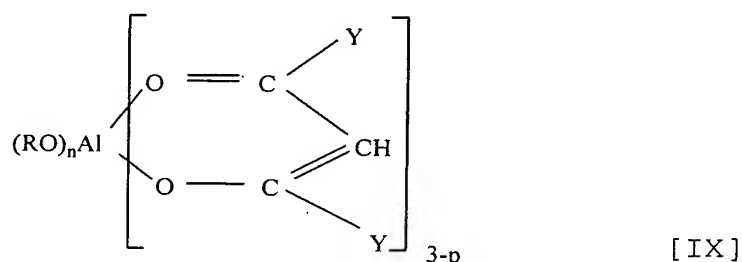


[VIII]

20 wherein, "n" is an integer of 0 to 4,

R is a monovalent hydrocarbon group of 1 to 20 carbon atoms,
 and

Y is a group selected from the group consisting of hydrocarbon of 1 to 8 carbon atoms, halogenated hydrocarbon, cyanoalkyl,
 25 alkoxyl, halogenated alkoxyl, cyanoalkoxy and amino group, which may be the same or different, and



5

wherein, "p" is an integer of 0 to 3,

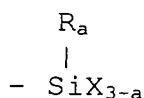
R is a monovalent hydrocarbon group of 1 to 20 carbon atoms, and

Y is a group selected from the group consisting of hydrocarbon of 1 to 8 carbon atoms, halogenated hydrocarbon, cyanoalkyl, alkoxyl, halogenated alkoxyl, cyanoalkoxy and amino group, which may be the same or different; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

50. A crosslinkable rubber composition characterized in that it contains

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

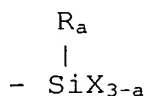
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group

consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

a curing catalyst (H) composed of a mercaptide type organotin compound (H3) having the Sn-S bond, a sulfide type organotin compound (H4) having the Sn=S bond, organocarboxylic acid (H5), organocarboxylic anhydride (H6), or a mixture of one of the above compounds and a carboxylic type organotin compound (H7); and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

51. A curable composition characterized in that it contains (Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(H8) a compound as a curing catalyst (H), represented by the general formula $Q_2Sn(OZ)_2$ or $[Q_2Sn(OZ)]_2O$,

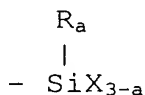
wherein, Q is a monovalent hydrocarbon group of 1 to 20 carbon

atoms; and Z is a monovalent hydrocarbon group of 1 to 20 carbon atoms or an organic group having a functional group capable of forming therein a coordination bond with Sn; and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

52. A curable rubber composition characterized in that it contains

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



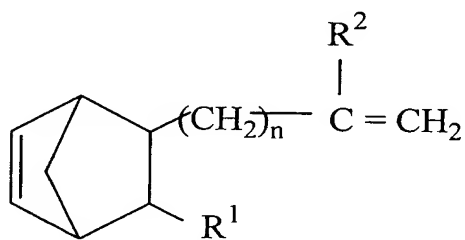
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and titanates (Y); and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

53. A curable composition, characterized in that it contains a silyl-containing ethylene/ α -olefin/non-conjugated polyene

random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a
 5 hydrolyzable silyl group, represented by the following general formula [III], and

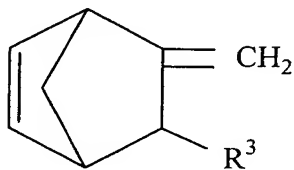


[I]

15 wherein, "n" is an integer of 0 to 10;

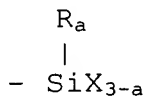
R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
 and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

25 wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

5

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

used for electric/electronic device members, transportation machines, and civil engineering/construction, medical and leisure areas.

54. The composition according to any one of Claims 28 to 53, wherein said areas of electric/electronic device members in which it is used are those for heavy electrical equipment, electronic devices, sealants for electric/electronic device circuits and substrates, potting materials, coating materials and adhesives; repair materials for wire coatings; insulation sealants for wire joint members; rolls for OA devices; and vibration insulators and sealants for gel and condensers.

55. The composition according to Claim 54, wherein said sealants are used for refrigerators, freezers, washing machines, gas meters, microwave ovens, steam irons and leakage breakers.

56. The composition according to Claim 54, wherein said potting materials are used for high-voltage transformer circuits, printed circuit boards, high-voltage transformers equipped with

a variable resistance; electric insulators, semiconductor devices, electroconductive devices, solar batteries and flyback transformers for TV sets.

5 57. The composition according to Claim 54, wherein said coating materials are used for coating thick-wall resistors for high-voltage services and circuit elements for hybrid ICs; HICs; electrical insulator members; semiconductor members, electroconductive members; modules; printed circuits; ceramic
10 substrates; buffers for diodes, transistors or bonding wires; semiconductor devices; and optical fibers for optical communications.

15 58. The composition according to Claim 54, wherein said adhesives are used for adhesion of CRT wedges, necks, electrical insulator members, semiconductor members and electroconductive members.

20 59. The composition according to any one of Claims 28 to 53, wherein said areas of transportation machines in which it is used are those for automobiles, ships, aircraft and railway vehicles.

25 60. The composition according to Claim 59, wherein said areas in which it is used for vehicles are sealants for engine gaskets, electrical members and oil filters; potting materials for igniter HICs and hybrid ICs; coating materials for bodies, window panes and engine controller substrates; and adhesives for oil pan gaskets, timing belt cover gaskets, braids, head lamp lenses, sunroof seals and mirrors.

61. The composition according to Claim 59, wherein said areas in which it is used for ships are sealants for wiring connecting/distribution boxes, electrical system members and wires; and adhesives for wires and glass.

62. The composition according to any one of Claims 28 to 53, wherein said areas of civil engineering/construction in which it is used are sealants for building materials for butt joints in the glass screening method for commercial buildings, joints around glass between sashes, joints for interiors in bathrooms, toilets and showcases, joints in bath tubs, flexible joints in exteriors of prefabricated housings, and joints for sizing boards; sealants for laminated glass; sealants for civil engineering works for repairing roads; paints/adhesives for metals, glass, stone materials, slates, concrete and tiles; and adhesive, waterproof and vibration insulating sheets.

63. The composition according to any one of Claims 28 to 53, wherein said medical areas are sealants for rubber plugs for drugs, syringe gaskets and rubber plugs for decompressioned blood tubes.

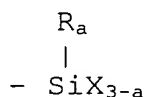
64. The composition according to any one of Claims 28 to 53, wherein said leisure areas are swimming caps, diving masks and earplugs for swimming; and gel buffers for sporting shoes and baseball gloves.

65. A sealant, a potting agent, a coating material or an adhesive,

10070507 4050/001

characterized in that it is composed of a crosslinkable rubber composition comprising

- an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and
 5 essentially no unsaturated double bond in the main chain:



10

[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

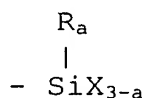
a compound (B) containing a hydroxyl group and/or a hydrolyzable group.

- 20 66. The sealant, the potting agent, the coating material or the adhesive according to Claim 65, wherein said compound (B) having a hydroxyl and/or a hydrolyzable group contains silicon.

67. A sealant, a potting agent, a coating material or an adhesive,
 25 characterized in that it is composed of a crosslinkable rubber composition comprising

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:

30



[III]

5

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

10

a compound (B1) having a silanol group and/or a compound which can react with moisture to form a compound having a silanol group in the molecule.

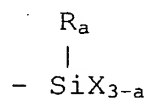
10070507.030702

15

68. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a crosslinkable rubber composition comprising

20

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

25

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

30

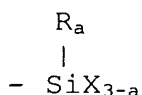
a tetravalent tin compound (C) and
a silicon compound (B2) represented by the following general
formula [V]:



wherein, R^4 and R^5 are each a substituted or unsubstituted hydrocarbon group of 1 to 20 carbon atoms, and "a" is 0, 1, 2, or 3.

69. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a curable composition comprising

(a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



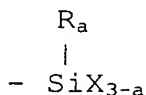
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(b) a silicon compound (B3) having at least one amino group and at least one trialkylsiloxy group in the molecule.

70. Asealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a curable composition comprising

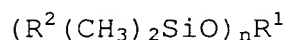
- 5 (a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

- (b) an organosilicon compound (B4) represented by the following general formula [VI]:



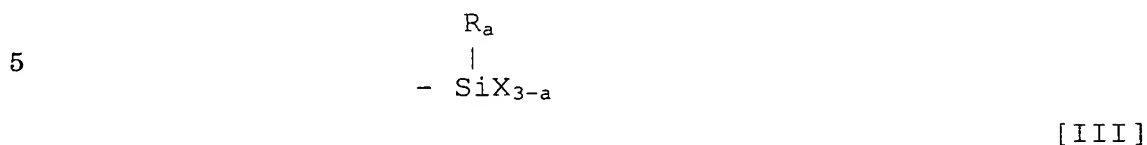
[VI]

wherein, R^1 is an alcohol residue or a weak acid residue, R^2 is a methyl or vinyl group, and "n" is a positive integer.

71. Asealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a crosslinkable rubber composition comprising

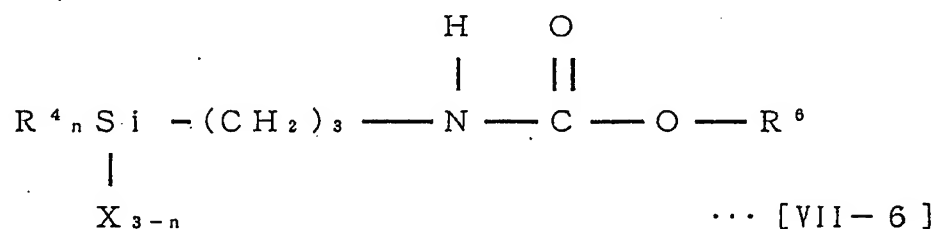
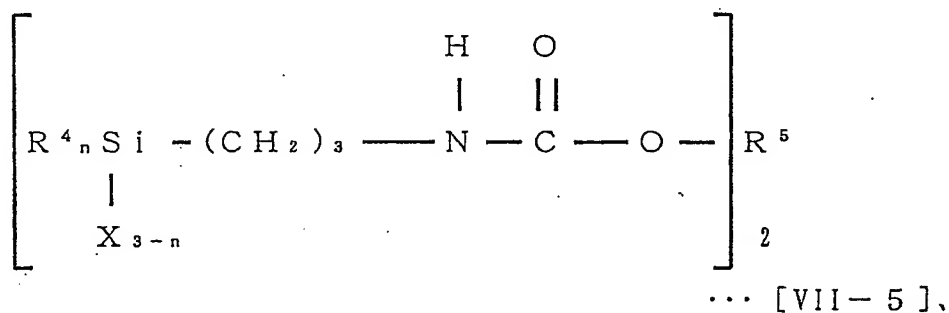
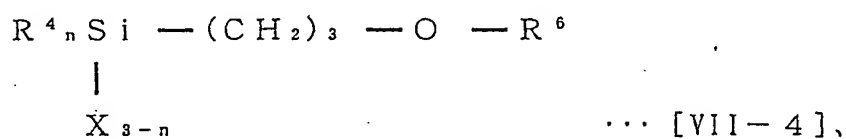
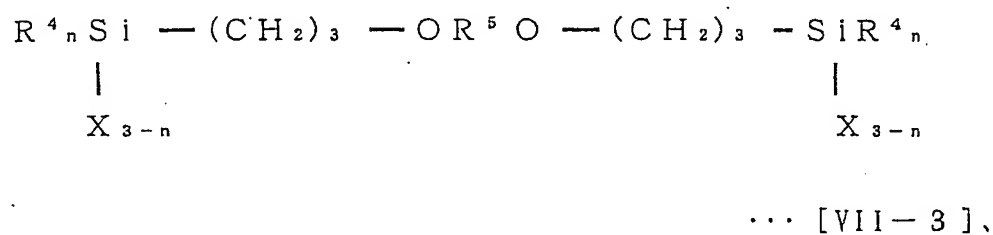
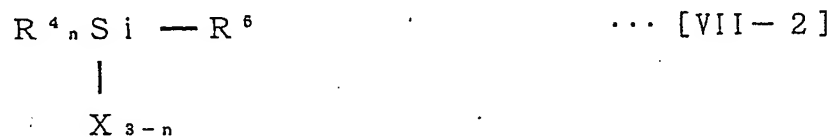
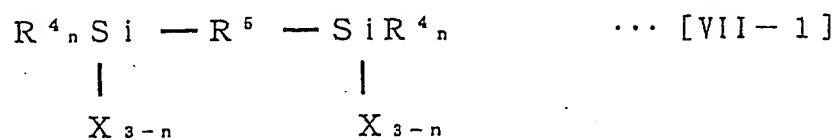
- 30 an organic polymer (Z) containing a hydrolyzable silyl group

represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



10 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

15 a silane compound (B5) represented by one of the following general formulae [VII-1] to [VII-6]:



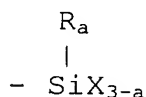
wherein, R^4 is a hydrocarbon group of 1 to 10 carbon atoms, selected from the group consisting of alkyl, aralkyl and aryl;

X is a group selected from the group consisting of halogen, hydroxy, alkoxyl, acyloxy, aminoxy, phenoxy, thioalkoxy, amino, ketoximate, mercapto and alkenyloxy;

R^5 is an alkylene or arylene group of 8 to 200 carbon atoms; R^6 is a monovalent alkyl group of 8 to 200 carbon atoms; and "n" is an integer of 0 to 2.

72. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a crosslinkable rubber composition comprising, as the active components,

(Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

(D) amines selected from the group consisting of aliphatic amines, alicyclic amines, modified cycloaliphatic polyamines and ethanolamines,

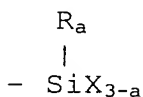
(B6) a silane coupling agent represented by the general

formula $Y_3(Si)Z$, wherein Y is an alkoxyl group; and Z is an alkyl group containing a functional group selected from the group consisting of amino group, which may be substituted with an aminoalkyl group or not, and mercapto group, and

- 5 (E) a resin composed of a lacquer-based paint, an acrylic lacquer-based paint, an acrylic resin-based paint, a thermosetting acrylic paint, an alkyd paint, a melamine paint, an epoxy paint or organopolysiloxane.

10 73. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a curable composition comprising

(a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and
5 essentially no unsaturated double bond in the main chain:



[III]

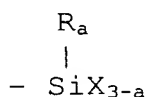
20 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, thioalkoxy and amino
25 group; and "a" is an integer of 0 to 2, and

(b) a silane-based compound substituted with amino group (B7).

30 74. A sealant, a potting agent, a coating material or an adhesive,

characterized in that it is composed of a curable composition comprising

(Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and
 5 essentially no unsaturated double bond in the main chain:

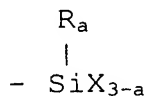


[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and
 15 amino group; and "a" is an integer of 0 to 2, and
 (F) a filler, (G) a plasticizer, (H) a curing catalyst and (B8) an organocarboxylate compound.

20 75. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a crosslinkable rubber composition comprising

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and
 25 essentially no unsaturated double bond in the main chain:



[III]

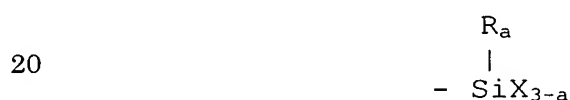
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy
 5 and amino group; and "a" is an integer of 0 to 2,

alcohols (B9) and/or a hydrolyzable ester (I) (except the hydrolyzable organosilicon compound (B10), and

a hydrolyzable organosilicon compound (B10).

10 76. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a two- or more multi-liquid type crosslikable rubber composition comprising at least two liquids of

15 a major ingredient (I) containing an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

25 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

30 a curing agent (II) containing a silanol condensing catalyst (J) and water or a hydrate of a metallic salt (B11).

77. A sealant, a potting agent, a coating material or an adhesive comprising a crosslinkable rubber composition, containing an organic polymer (Z1) containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, and a high-molecular compound (K) other than the organic polymer (Z1) and/or an inorganic filler (L).

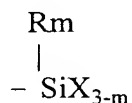
78. A sealant, a potting agent, a coating material or an adhesive comprising a crosslinkable rubber composition, containing (Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, and
 5 (K1) an organosilicon polymer.

79. A sealant, a potting agent, a coating material or an adhesive comprising a crosslinkable rubber composition, containing

40 (Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



(1)

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group
 20 consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(K2) organic rubber, and

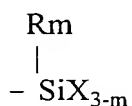
(M) a crosslinking agent for the organic rubber (K2).

25

80. A sealant, a potting agent, a coating material or an adhesive comprising a crosslinkable rubber composition, containing

(Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially

no unsaturated double bond in the main chain,



5

(1)

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(K3) an epoxy resin,

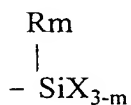
(N) a silane coupling agent,

(O) a silanol condensing catalyst, and

(P) a curing agent for the epoxy resin.

81. A sealant, a potting agent, a coating material or an adhesive comprising a crosslinkable rubber composition, containing

(Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula (1) and essentially no unsaturated double bond in the main chain,



25

(1)

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate,

amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(K3) an epoxy resin,

(Q) a silicon compound containing a functional group
5 reactive with an epoxy group and a hydrolyzable silyl group in the molecule, and

(R) a silicon compound containing at least two hydroxyl groups bonded to the silicon atom in the molecule.

10 82. A sealant, a potting agent, a coating material or an adhesive comprising a crosslinkable rubber composition, containing

(Z1) an organic polymer containing a hydrolyzable silyl group represented by the following general formula
and essentially no unsaturated double bond in the main chain,



20 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

25 (L1) calcium carbonate

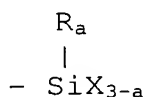
, and

(L2) talc.

83. A sealant, a potting agent, a coating material or an adhesive,

characterized in that it is composed of a curable composition, containing

- (a) an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



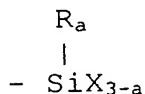
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2,

- (b) a nickel-containing light stabilizer (S),
(c) a silane coupling agent (T).

84. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a crosslinkable rubber composition, containing

- an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:

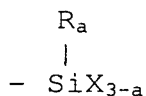


[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and
 5 a sulfur-based aging inhibitor (U).

85. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a curable composition, containing

(Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

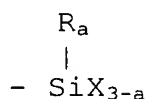
20 wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

25 (V) a compound having, in the molecule, an unsaturated group capable of triggering polymerization by reacting with oxygen in air and/or a photopolymerizable material.

86. A sealant, a potting agent, a coating material or an adhesive,
 30 characterized in that it is composed of a crosslinkable rubber

composition, containing

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



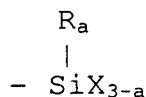
[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

a curing catalyst (H) composed of a mercaptide type organotin compound (H3) having the Sn-S bond, a sulfide type organotin compound (H4) having the Sn=S bond, organocarboxylic acid (H5), organocarboxylic anhydride (H6), or a mixture of one of the above compounds and a carboxylic type organotin compound (H7).

87. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a curable composition, containing

(Z) an organic polymer containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

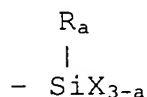
5

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and

(H8) a compound as a curing catalyst (H), represented by the general formula $Q_2Sn(OZ)_2$ or $[Q_2Sn(OZ)]_2O$, wherein, Q is a monovalent hydrocarbon group of 1 to 20 carbon atoms; and Z is a monovalent hydrocarbon group of 1 to 20 carbon atoms or an organic group having a functional group capable of forming therein a coordination bond with Sn.

88. A sealant, a potting agent, a coating material or an adhesive, characterized in that it is composed of a crosslinkable rubber composition, containing

an organic polymer (Z) containing a hydrolyzable silyl group represented by the following general formula [III] and essentially no unsaturated double bond in the main chain:



[III]

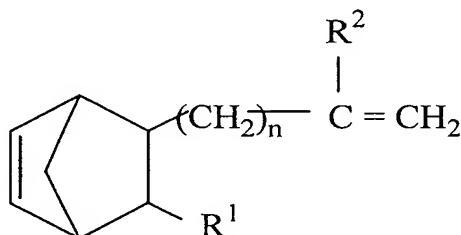
30

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group

consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, mercapto, alkenyloxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2, and titanates (Y).

5

89. A coating material for vehicles, characterized in that it is composed of a curable composition, containing a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],

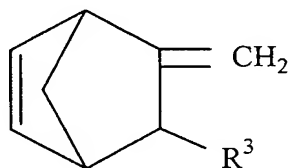


[I]

wherein, "n" is an integer of 0 to 10;

20 R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; and

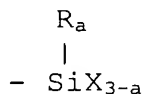
R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



5

[II]

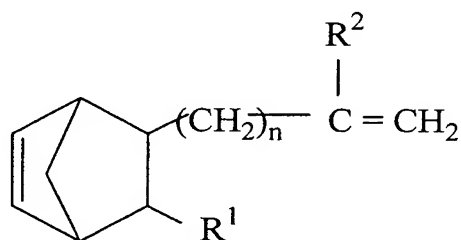
wherein, R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2.

90. A sealant, a potting agent, a coating material for purposes other than vehicles or an adhesive, characterized in that it is composed of a curable composition, containing a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A1) which has a structural unit derived from a norbornene compound, represented by the following general formula [I] or [II], as the non-conjugated polyene with at least one specific vinyl group at the terminal, and containing a hydrolyzable silyl group, represented by the following general formula [III],

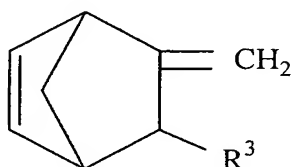


[I]

wherein, "n" is an integer of 0 to 10;

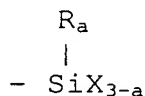
R¹ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms;
and

R² is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms,



[II]

wherein, R³ is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms,



[III]

wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, mercapto, alkenyloxy, alkoxyl,

acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy and amino group; and "a" is an integer of 0 to 2.

91. A sealant for laminated glass, characterized in that it
5 contains

(A2) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber containing a hydrolyzable silyl group, represented by the following general formula (1):



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(H) a curing catalyst, and

(B11) water or a hydrate of a metallic salt.

92. A sealant for laminated glass, characterized in that it contains

(A2) a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber containing a hydrolyzable silyl group, represented by the following general formula (1):



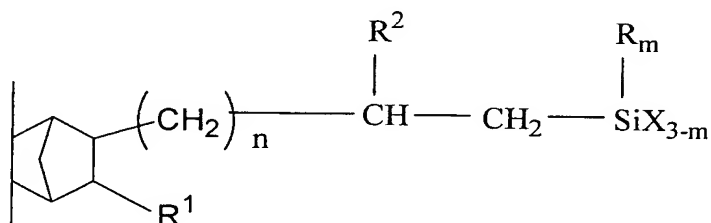
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2,

(X) a hot melt resin,

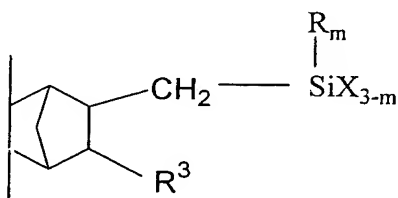
(H) a curing catalyst, and

(B11) water or a hydrate of a metallic salt.

93. The sealant for laminated glass according to Claim 91 or 92, wherein said silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A2) has at least one type of silyl-containing units represented by the general formula (2) or (3):



(2)

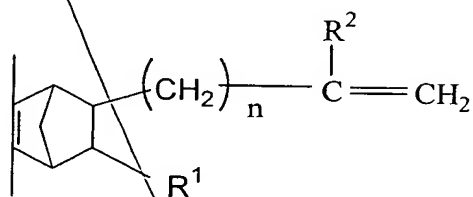


(3)

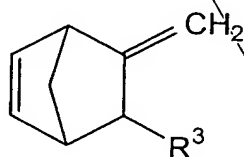
wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon

atoms; R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms; R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; X is a hydrolyzable group selected from the group
 5 consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2 and "n" is an integer of 0 to 10.

94. The sealant for laminated glass according to one of Claims 91 to 93, wherein said silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber (A2) is produced by reacting a silyl-containing ethylene/ α -olefin/non-conjugated polyene random copolymer rubber having a norbornene compound as the non-conjugated polyene with at least one terminal vinyl group represented by the following general formula (4) and/or (5):



(4)



(5)

wherein, R^1 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; R^2 is a hydrogen atom or an alkyl group of 1 to 5 carbon atoms; R^3 is a hydrogen atom or an alkyl group of 1 to 10 carbon atoms; and "n" is an integer of 0 to 10,

5 with a silicon compound represented by the following general formula (6):



wherein, R is a monovalent hydrocarbon group of 1 to 12 carbon atoms; X is a hydrolyzable group selected from the group consisting of hydride, halogen, alkoxyl, acyloxy, ketoximate, amide, acid amide, aminoxy, thioalkoxy, amino, mercapto and alkenyloxy group; and "m" is an integer of 0 to 2, to add the SiH group of the silicon compound to the double bond of the copolymer rubber.

add R^3